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1.0 Description of the Procedure

Aortic aneurysms can develop anywhere along the length of the aorta, but 3/4 of aneurysms are located in the abdominal aorta. Thoracic aortic aneurysms, including those that extend from the descending thoracic aorta into the upper abdomen, account for 1/4 of aortic aneurysms.

Endovascular stent grafting of the vascular system has emerged as a therapeutic modality for aortic aneurysms. Their safety and efficacy has been explored in the treatment of thoracic aortic aneurysms, abdominal aortic aneurysms, and peripheral arterial aneurysms.

Endovascular graft repair is performed under general, spinal or regional anesthesia. During the procedure, a prosthetic endograft is introduced with radiographic guidance through the femoral artery, iliac artery or the abdominal aorta. The device is advanced to the aneurysm site, deployed, and attached to the normal aorta with a self-expandable stent system. While both thoracic and abdominal aneurysms can be surgically repaired using stents and grafts, these open procedures are associated with considerable morbidity and mortality. Endovascular repair was developed to provide a minimally invasive approach, using a catheter inserted through a small groin incision to place the stent/graft across the aneurysm site. Patients requiring aortic aneurysm artery repair often have very significant co-morbid conditions including cardiac, pulmonary, and renal disease or insufficiency, and the comorbidities significantly increase the risk for major perioperative complications following open surgical repair.

A **thoracic aortic aneurysm (TAA)** is a potentially life-threatening disorder involving a structural weakness of the aortic wall. Progressive arterial dilation and possible rupture may occur. Standard treatment for thoracic aortic aneurysms is an open surgical resection and replacement of the diseased aorta with a graft.

An **abdominal aortic aneurysm (AAA)** is usually asymptomatic until it expands or ruptures. Presence of a pulsatile abdominal mass is virtually diagnostic but is found in less than half of cases. Rupture is uncommon if aneurysms are less than 5 cm in diameter, but ruptures are dramatically more common for aneurysms greater than 6 cm in diameter. Without prompt intervention, ruptured aneurysms are often fatal.

Endovascular stent grafting for the repair of **descending thoracic aorta (DTA)** and **AAA** is an option for treatment of aneurysms and may be covered for patients who meet the required criteria.

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2.0 Eligible Recipients

2.1 General Provisions

Medicaid recipients may have service restrictions due to their eligibility category that would make them ineligible for this service.

2.2 Special Provisions

Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) is a federal Medicaid requirement that provides recipients under the age of 21 with medically necessary health care to correct or ameliorate a defect, physical or mental illness or a condition identified through a screening examination. While there is no requirement that the service, product or procedure be included in the State Medicaid Plan, it must be listed in the federal law at 42 U.S.C. § 1396d(a). Service limitations on scope, amount or frequency described in this coverage policy do not apply if the product, service or procedure is medically necessary.

The Division of Medical Assistance's policy instructions pertaining to EPSDT are available online at http://www.dhhs.state.nc.us/dma/prov.htm.

3.0 When the Procedure is Covered

3.1 Abdominal Aortic Aneurysm

Endovascular stent grafting for abdominal aortic aneurysm is considered medically necessary for high-risk patients when **ALL** of the following criteria are met:

1. The endoprosthesis is FDA approved for the treatment of abdominal aortic aneurysms;
2. The risks of an open repair of the aneurysm are unacceptable;
3. There is adequate iliac/femoral access; and
4. The risk of aneurysm rupture is high, as indicated by any one of the following criteria:
    a. An aneurysmal diameter greater than 5 cm
    b. An aneurysmal diameter of 4 cm o-5 cm that has increased in size by 0.5 cm in the last six months
    c. An aneurysmal diameter that measures twice the size of the normal infrarenal aorta

3.2 Thoracic Aortic Aneurysm

Endovascular stent grafting for descending thoracic aortic aneurysm is considered medically necessary for high-risk patients when **ALL** of the following criteria are met:

1. The endoprosthesis is FDA approved for the treatment of descending thoracic aortic aneurysm;
2. The risks of an open repair of the aneurysm are unacceptable;
3. There is adequate iliac/femoral access;
4. Aortic inner diameter in the range of 23mm to 37mm; and
5. 2 cm or greater non-aneurysmal aorta proximal and distal to the aneurysm

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4.0 When the Procedure is Not Covered

4.1 General Criteria

Endovascular repair of aortic aneurysms is not covered when:

1. the recipient does not meet the eligibility requirements listed in **Section 2.0.**
2. the recipient does not meet the medical necessity criteria listed in **Section 3.0**.
3. the procedure duplicates another provider's procedure.
4. the procedure is experimental, investigational or part of a clinical trial.
5. the procedure is performed without an FDA-approved device

5.0 Requirements for and Limitations on Coverage

5.1 Prior Approval

Prior approval is not required.

5.2 Limitations

Medicaid only covers one procedure per date of service.

6.0 Providers Eligible to Bill for the Procedure

Providers who meet Medicaid's qualifications for participation and are currently enrolled with the N.C. Medicaid program are eligible to bill for endovascular repair of aortic aneurysms when the procedure is within the scope of their practice.

7.0 Additional Requirements

Documentation clearly supporting the medical necessity of the procedure should be legible, maintained in the patient's medical record, and made available to Medicaid upon request.

8.0 Policy Implementation/Revision Information

Original Effective Date: January 1, 2001

Revision Information:

Date	Section Revised	Change
	Throughout policy	The policy was updated to include coverage of repairs of thoracic aortic aneurysms.

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Attachment A: Claims Related Information

Reimbursement requires compliance with all Medicaid guidelines including obtaining appropriate referrals for recipients enrolled in the Medicaid Managed Care programs.

A. Claim Type

1. CMS 1500 Claim Form

Providers enrolled in the N.C. Medicaid program bill professional services on the CMS-1500 claim form.

2. UB 92 Claim Form

Hospital providers enrolled in the N.C. Medicaid program bill facility charges on the UB-92 claim form and professional charges on the CMS-1500 claim form.

B. Diagnosis Codes

Providers must bill the ICD-9-CM diagnosis codes(s) to the highest level of specificity that supports medical necessity.

C. Procedure Code(s)

1. CPT Procedure Codes

The CPT procedure codes listed below are subject to the multiple surgery guidelines.

33880	33881	33883	33884	34808
33889	33891	34800	34825	34826
34812	34813	34820	33886	34900
34830 through 34834		34802 through 34805		

2. ICD-9-CM Procedure Codes

For inpatient billing on a UB-92 claim form, bill the appropriate ICD-9-CM procedure code:

39.50	39.71	39.73	39.79

D. Modifiers

Providers are required to follow applicable modifier guidelines.

F. Place of Service

Allowable places of service for endovascular repair procedures are inpatient hospitals and outpatient hospital settings.

G. Reimbursement

Providers must bill usual and customary charges.

H. Billing Guidelines

Codes 33880 through 33891 and 34800 through 34826 represent a family of procedures to report placement of an endovascular graft for repair of the aorta. These codes include all device introduction, manipulation, positioning and deployment. All balloon angioplasty and/or stent deployment within the target treatment zone for the endoprosthesis, either before or after endograft deployment, are not reported separately.

The following procedure codes, when applicable, are reported separately:

34812	34820	34833	34834
36140	35226	35286	
36245 through 36248		36200 through 36218	

For radiological supervision and interpretation, use:

- 75952 in conjunction with 34800 through 34808
- 75953 in conjunction with 34825 through 34826
- 75954 in conjunction with 34900
- 75956 in conjunction with 33880
- 75957 in conjunction with 33881
- 75958 in conjunction with 33883
- 75959 in conjunction with 33886

Do not report 33881, 33883 when extension placement converts repair to cover left subclavian origin. Use only 33880.

Do not report 33886 in conjunction with 33880, 33881.

Report 33886 once, regardless of number of modules deployed.

Do not report 33889 in conjunction with 35694.

Do not report 33891 in conjunction with 35509, 35601.

Report 34812, 34820, 34833, 34844 as appropriate, in addition to 34800-34808.

Use 34826 in conjunction with 34825.

Use 34825, 34826 in addition to 34800-34808, 34900 as appropriate.

Do not report 34833 in addition to 34820.

For placement of extension prosthesis during endovascular iliac artery repair, use 34825.